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## **SAFETY PROGRAM**

*Some contractors talk customer satisfaction.....we guarantee it!*

**PAIGE MECHANICAL GROUP, Inc.**  
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## **SAFETY AND HEALTH POLICY**

### **I. Purpose**

Paige Mechanical Group, Inc. is committed to providing a safe and healthful work environment for all employees, customers, neighbors, and others who may work, visit or enter the Company facilities or who may be affected by our products or activities.

### **II. General**

This Company strives to operate in compliance with the Occupational Safety and Health Act of 1970 to provide safe and healthful working conditions and to teach safe work practices that prevent injury to employees. Employees must comply with all general safety and health rules while on Company property and ensure that customers, visitors, vendors, and independent contractors under their supervision are informed of and follow those rules while on Company property.

### **III. General Safety Rules**

- A. Following established safety and health rules, regulations, and procedures is a condition of employment. Before starting any job, each employee should receive and understand instructions in order to perform his/her job properly and safely.
- B. Employees are required to know the safety and health requirements of his/her job, such as the locations of fire extinguishers, evacuation procedures, and the operation of safety showers and eye washes.
- C. Each employee will receive periodic workplace health and safety training. The training may cover potential safety and health hazards and safe work practices and procedures to eliminate or minimize hazards.
- D. Employees should never take shortcuts or chances that could create a safety or health hazard or that might damage equipment or material.
- E. Employees must immediately report all potentially unsafe conditions, machines, or hazards to their supervisor or the Health and Safety Department.
- F. Work and storage areas, aisles and passageways and access to exits, fire extinguishers, and electrical panels should be kept neat, clean and unobstructed.
- G. Employees must not bring chemicals to work, purchase chemicals, or accept vendor samples without obtaining prior approval from Company management.

- H. In the case of accidents that result in injury, regardless of how insignificant the injury may appear, employees should immediately notify their supervisor or the health and safety department.
- I. Failure to comply with safety rules, regulations, or procedures may result in disciplinary action, up to and including termination of employment.

## **HAZARD COMMUNICATION PROGRAM**

### **I. Purpose**

- A. The purpose of this Hazard Communication Program ("Program") foremost is to ensure that the hazards of all chemicals that are used in the workplace and the information concerning these hazards are communicated to employees who may be exposed to such in their jobs. This Program applies to all employees working at Paige Mechanical Group, Inc. ("PMG").
- B. This Program contains the mandatory legal requirements that are set forth in the Occupational Safety and Health Administration ("OSHA") Hazard Communication Standard, 29 CFR §1910-1200. This Program describes the requirements and responsibilities for Material Safety Data Sheets ("MSDS"), chemical container labeling and other forms of warning, and employee information and training. Under this Program, employees will be informed of the contents of the Hazard Communication Standard, the hazardous properties of chemicals with which employees work, safe handling procedures, and measures to take for protection from these chemicals.

### **II. General**

- A. The Safety Coordinator is the Program Coordinator who will review and update the Program as necessary. Copies of the written program and the Hazard Communication Standard may be obtained from the Safety Coordinator, whose office is located in Boise, Idaho.
- B. PMG requires that all employees, including supervisors and managers, comply with this Program. Employees who fail to comply will be subject to appropriate disciplinary action, up to and including termination.

### **III. List Of Hazardous Chemicals**

- A. PMG maintains a master list of all hazardous chemicals and related work practices used at each facility and updates the list as necessary. PMG's list of chemicals identifies all of the chemicals used in its work areas. A separate list may be maintained for each work area. Each list also identifies the corresponding MSDS for each chemical. A master list of these chemicals will be maintained by and is available from the Safety Coordinator.

### **IV. Material Safety Data Sheets (MSDS)**

- A. The MSDS provides specific information on the chemicals used in Paige Mechanical Group, Inc.'s workplaces. The Safety Coordinator will maintain a current binder with an MSDS for every substance on the list of hazardous chemicals. The MSDSs are available at their respective locations.

- B. The Safety Coordinator is responsible for acquiring and updating the MSDS. If additional research is necessary or if an MSDS has not been supplied with an initial shipment of a chemical, the Safety Coordinator will contact the chemical manufacturer or vendor. Each new chemical must be approved and an MSDS on file before it is brought on site for use. All new procurements for Paige Mechanical Group, Inc. must be cleared by the Safety Coordinator.

**V. Labels And Other Forms Of Warning**

- A. The Safety Coordinator will ensure that all hazardous chemicals are properly labeled and updated as necessary. At a minimum, labels will include the chemical identity of the contents, appropriate hazard warnings, and the name and address of the manufacturer, importer, or other responsible party.
- B. The Safety Coordinator will refer to the corresponding MSDS for each chemical to verify that the labeling is correct. Containers shipped from PMG, if any, will be checked by Safety Coordinator to make sure that all containers are properly labeled and that appropriate MSDS information accompanies the shipment.
- C. If there are stationary containers within a work area that have similar contents and hazards, signs will be posted on them to convey the hazard information. On stationary process equipment, regular process sheets, batch tickets, blend tickets, and similar written materials may be substituted for container labels if they identify the contents and the hazard.
- D. When transferring chemicals from a labeled container to a portable container that is intended only for an employee's immediate use, no labels are required on the portable container.

**VI. Nonroutine Tasks**

- A. Those tasks that are non-routine but involve the potential exposure to hazardous chemicals will be evaluated for chemical hazards before the task commences. When an employee is required to perform hazardous nonroutine tasks, a special training session will be conducted to provide information about the hazardous chemicals to which he/she might be exposed while performing the nonroutine task and the proper precautions to take to minimize or prevent the risk of exposure.

**VII. Training**

- A. Paige Mechanical Group, Inc. will train all employees who work with or are potentially exposed to hazardous chemicals on the Hazard Communication Standard, this Program and the safe use of those hazardous chemicals. Whenever a new chemical hazard is introduced into the workplace, additional training will be provided. Supervisory personnel will be available to answer questions and provide daily monitoring of safe work practices.

- 1. At a minimum, the training will cover the following:

- a. An explanation of the standard and this written program;
  - b. Identity of any operation in their work area where hazardous chemicals are present;
  - c. The location of the Program;
  - d. Chemical and physical properties of hazardous materials (for example, flash point, reactivity) and methods that can be used to detect the presence or release of chemicals (including chemicals in unlabeled pipes);
  - e. Physical hazards of chemicals (potential for fire, explosion, etc.) in the work area;
  - f. Health hazards, including signs and symptoms of exposure, associated with exposure to chemicals and any medical condition known to be aggravated by exposure to the chemical;
  - g. Procedures to protect against hazards (personal protective equipment that is required and its proper use and maintenance; work practices or methods to assure proper use and handling of chemicals; and procedures for emergency response);
  - h. Work procedures to follow to assure protection when cleaning hazardous chemical spills and leaks; and
  - i. Where MSDS are located, how to read and interpret the information on both labels and MSDS and how employees may obtain additional hazard information.
- B. Retraining is required when the hazard changes or when a new chemical or hazard is introduced into the workplace. Paige Mechanical Group, Inc. will provide training, as appropriate, in safety meetings to ensure the effectiveness of its training program.
- C. The Safety Coordinator will review Paige Mechanical Group, Inc.'s Program periodically and recommend changes as appropriate.

#### **VIII. Outside Contractors**

- A. Upon notification of their presence or potential presence in Paige Mechanical Group, Inc.'s workplace, the Safety Coordinator will advise outside contractors of this Program, any chemical hazards that may be encountered in the normal course of their work on Paige Mechanical Group, Inc. premises, the labeling system in use, the protective measures to be taken, and the safe handling procedures to be used with regard to these chemical hazards. In addition, Paige Mechanical Group, Inc. will notify these individuals of the location and availability of MSDS. Each

contractor bringing chemicals on site must provide Paige Mechanical Group, Inc. with the appropriate hazard information on these substances, including the MSDS, the labels used and the precautionary measures to be taken when working with these chemicals.

**IX. Additional Information**

- A. All employees may obtain further information on this Program, the Hazard Communication Standard, applicable MSDS and chemical information lists from the Safety Coordinator.

## **PERSONAL PROTECTIVE EQUIPMENT PROGRAM**

### **I. Purpose & Scope**

The purpose of this Personal Protective Equipment Program ("Program") is to ensure that Paige Mechanical Group, Inc.'s ("PMG") employees have appropriate personal protective equipment ("PPE") to protect them from the hazards that they encounter in the workplace.

Federal law requires that PMG assess the workplace to determine if hazards are present, select and have employees use PPE that will protect them from the hazards associated with their jobs, and train employees on the proper use of PPE. This Program contains the requirements that are set forth in the Occupational Safety and Health Administration's (OSHA) Personal Protective Equipment standard, 29 CFR § 1910.132, and other information necessary for PMG to meet these obligations.

PMG requires that all employees comply with this Program. Employees who fail to comply will be subject to appropriate disciplinary action, up to and including termination.

### **II. Job Hazard Assessment & PPE Selection**

- A. PMG will conduct a Job Hazard Assessment ("JHA") of each work area to determine if hazards are present, or are likely to be present, which warrant the use of PPE (see attached JHA form). The Safety Coordinator and/or the area supervisor will conduct the JHAs for their assigned departments or areas.
  - 1. The Safety Coordinator may refer to Appendix B of 29 CFR Part 1910, Subpart I as guidance for conducting JHAs and PPE selection.
  - 2. The Safety Coordinator will verify that the JHA has been performed through a written record that (1) identifies the workplace evaluated; (2) is certified by the person performing the JHA that the evaluation has been performed; (3) contains the date the JHA has been performed; and (4) identifies the document as a JHA certification.
- B. If workplace hazards are present, or likely to be present, the area supervisor (with the Safety Coordinator, if necessary) will:
  - 1. Select, and have each affected employee use, the types of PPE that will protect the employee from the hazards identified in the JHA. PMG will select eye and face, head, foot and hand protection in accordance with the applicable OSHA standards;
  - 2. Communicate selection decisions to each employee; and
  - 3. Select PPE that properly fits each affected employee.
- C. Additionally, all PPE will be of safe design and construction for the work to be performed. Only PPE that has been approved by the Safety Coordinator may be used. Defective or damaged PPE may not be used.

- D. Employees must wear all PPE identified in the JHA to protect against hazards when working in those areas.

### III. Contractors

Non-PMG employees (e.g. contractors, vendors, equipment representatives, etc.) must also comply with the requirements of this Program through the direction and supervision of their host.

Contractors creating their own hazard based on the work they are performing will be responsible for the proper selection and use of PPE for their own workers and communicating these requirements to PMG to ensure that any PMG employees exposed to these hazards are using appropriate PPE. If a contractor's work involves potential exposure to PMG's hazardous materials or processes, PMG will inform them of the hazards and recommend and/or provide the appropriate PPE.

### IV. Training

- A. The Safety Coordinator and/or area supervisor will train employees who are required to wear and use PPE. Each employee shall be trained on the following:
  - 1. When PPE is necessary;
  - 2. What PPE is necessary;
  - 3. How to properly don, doff, adjust, and wear PPE;
  - 4. The limitations (e.g. durability, useful life, incompatibilities, etc) of the PPE; and
  - 5. The proper care, maintenance, and disposal of the PPE.
- B. If PMG provides the PPE to contractors, the Company will provide training on its proper use.
- C. Trained employees will demonstrate both an understanding of this training and the ability to use PPE properly before being allowed to perform work requiring the use of PPE.
  - 1. The Safety Coordinator will verify that each employee has received and understood the required training through a written record that contains (1) the name of each employee trained; (2) the date(s) of the training; and (3) the subject of the certification.
  - 2. Retraining of employees may be necessary under certain circumstances including:
    - a. Changes in the workplace render previous training obsolete;
    - b. Changes in the types of PPE required to be used due to area hazards render previous training obsolete; and

- c. Inadequacies in an affected employee's knowledge or use of assigned PPE indicate that the employee has not retained the requisite understanding or skill.

## RESPIRATORY PROTECTION PROGRAM

### I. Purpose

- A. The purpose of Paige Mechanical Group, Inc.'s Respiratory Protection Program ("Program") is to ensure the health and safety of employees who may need to wear a respirator due to airborne hazards associated with their jobs. This Program applies to all employees.
- B. The law requires that PMG implement a Respiratory Protection Program to protect the safety and health of employees where respirators are required to perform the job. This Program contains the mandatory federal legal requirements that are set forth in the Occupational Safety and Health Administration's ("OSHA") Respiratory Protection standard, 29 CFR § 1910.134 and other information necessary for the safe and effective use of respirators. All employees must comply with this Program. Employees who fail to comply will be subject to appropriate disciplinary action up to and including termination.

### II. Responsibilities

#### A. Employer Responsibilities:

1. Maintain, evaluate, and update the Program;
2. Conduct training and fit testing;
3. Determine the appropriate respirator for the job;
4. Evaluate work areas for engineering controls and respirator requirements;
5. Issue approved respirators; and
6. Ensure that required records are maintained in accordance with applicable law.

#### B. Employee Responsibilities:

1. Wear appropriate personal protective equipment (PPE) as required.
2. Inform the Safety Coordinator of health conditions that may be aggravated by respirator use;
3. Keep respirators clean and sanitary;
4. Fit check respirator before each use;
5. Inform the Safety Coordinator of any problems with your respirator;
6. When voluntarily using a respirator, follow procedures and wear it correctly;
7. If symptoms (e.g. dizziness, headache, nausea, odors) are experienced while wearing a respirator during work activities, employees must exit the area

immediately and inform their supervisor. Any necessary follow-up actions, such as respirator adjustment or additional hazard analysis, will be conducted to ensure adequate protection.

### III. Respirator Selection

- A. The Safety Coordinator will take the following steps to assess a potential respiratory hazard and ensure adequate protection from it:
  - 1. Identify the hazard, with consideration given to chemical and physical properties, toxicity data, and concentration of hazardous constituents;
  - 2. Assess the work environment – space, ventilation, mobility, work rate, etc.;
  - 3. Select the respirator certified for use with that particular hazard;
  - 4. Ensure that the device is functioning properly – perform positive and negative pressure checks each time the respirator is worn.

### IV. Type of Respirator

- A. Respirators generally can be categorized into three basic types: air-purifying respirators, air-supplying respirators, and self-contained breathing apparatus (SCBA).
  - 1. Air Purifying Respirators
    - a. Air-purifying respirators remove limited concentrations of air contaminants from the breathing air; they do not effect oxygen content. Under no circumstances, can they be used in areas that are oxygen deficient or in atmospheres that are immediately dangerous to life or health (IDLH). Air-purifying respirators range from simple dust masks to sophisticated positive pressure respirators.
    - b. These respirators generally are composed of a soft, rubber facepiece and a replaceable filter or cartridge. Two major subcategories of air-purifying respirators are the mechanical filter type and the chemical cartridge type: the mechanical filter protects against particulates such as dust, while the chemical cartridge protects against light concentrations of chemicals, such as solvent vapors.
    - c. The sub-categories of air-purifying respirators are:
      - (1) Single Use (disposable). This type of respirator offers very limited protection and is intended for use by those working around simple dusts, dirt or paid droplets. Painters, plasterers, carpenters and movers are some employees who would benefit from its use. It offers no protection from chemical vapors.
      - (2) Half-Mask Respirator. A half-mask covers half the face from under the chin to the bridge of the nose. Various cartridges for different

chemicals can be affixed to the facepiece. Because the eyes are not covered, care must be taken in determining whether this level of protection is adequate to prevent exposure to the particular respiratory hazard.

- (3) Full-Facepiece Respirator. The full-facepiece respirator extends from under the chin to the forehead. This broader coverage provides a better face fit, some eye protection, and a higher overall protective factor.
- (4) Powered Air-Purifying Respirator (PAPR). The respirators described in the foregoing sections rely on breathing energy to draw air in through the cartridge or filter. In contrast, a PAPR uses a battery-powered blower that passes the contaminated air through the cartridge or filter where the air is cleaned and forced through a hose to the facepiece.
  - (a) One advantage of using a PAPR is that it supplies air at a positive pressure within the facepiece, so that leaks are from inside to outside. The batteries will only last a limited amount of time and so must be recharged after use or during use depending on the total work time and the particular model of the PAPR.
  - (b) Air-Supplied Respirator. Air-supplied respirators deliver breathing air from a clean air source through a supply hose connected to the worker's facepiece. If air-supplied respirators are to be used on any job(s), PMG will provide specific instruction and training.
  - (c) Self-Contained Breathing Apparatus (SCBA). SCBA's provide protection for varying periods of time depending upon the amount of breathing air (air pressure and tank size) and the breathing demands of the wearer. When using these devices the worker is independent of his/her surrounding atmosphere; therefore, they can be used in IDLH atmospheres.

The self-contained respirators are heavy and awkward to wear. They also have a limited air supply (usually 30 to 60 minutes), thus requiring numerous air tanks on hand depending on the size of the job.

SCBA's and some gas masks contain warning devices such as signal alarms or gauges which allow the individual wearing the equipment to be aware of how much air is still available. Most other gas masks and air-purifying respirators do not have warning devices; therefore, their filters should be

changed according to the manufacture's and OEHS's recommendations.

## V. Medical Examinations

- A. An employee must undergo a medical evaluation to determine his/her ability to use a respirator before being fit tested or required to use a respirator. Paige Mechanical Group, Inc. will engage a physician or other licensed health care professional ("PLHCP") to perform medical evaluations using the medical questionnaire set forth in 29 CFR §1910.134, Appendix C. Before the PLHCP makes a recommendation, the following information will be provided: (1) the type and weight of the respirator; (2) the duration and frequency of respirator use; (3) the expected physical work effort; (4) additional PPE to be used; and (5) temperature and humidity extremes that may be encountered.
- B. The initial medical questionnaire and examination will be administered confidentially during normal working hours.
- C. An additional medical evaluation will be required under the following circumstances: (1) an employee reports signs or symptoms related to his/her ability to use a respirator; (2) the PLHCP, supervisor or Safety Coordinator determines that an employee needs to be reevaluated; (3) observations during fit testing or use indicate a need for a reevaluation; or (4) a change in physical or workplace conditions result in a substantial increase in the physiological burden placed on an employee.

## VI. Fit Testing

- A. Individuals who use respirators must be instructed how to wear the respirator properly, to make adjustments, and to determine a proper fit. Proper seals between the wearer and the facepiece are essential for respirators to work at the maximum design efficiency. Having facial hair, lacking teeth, or wearing corrective lenses interfere with a proper fit. Even contact lenses should not be worn while wearing a respirator in a contaminated area; if the integrity of the seal is breached and the contaminant is an eye irritant, injury to the eyes can be worsened by the contacts.
- B. Fit testing is conducted by the Safety Coordinator on a project-by-project basis and at departmental request; supervisors who will oversee the project may participate. Periodic updates may be necessary, especially in the case of weight gain or loss, or other changes in the shape of the face that may affect the seal. The user tests the facepiece to face seal of the respirator by wearing it in a test atmosphere where a known contaminant is present.
- C. There are two types of fit testing, qualitative and quantitative.
  - 1. Qualitative Tests. Qualitative tests are fast and easily performed. However, they rely on the wearer's sensitivity, and are therefore not entirely reliable. The two major qualitative tests are described below:
    - a. Isoamyl Acetate Test. Isoamyl acetate is a low toxicity substance with a banana-like odor. It is widely used in testing the facepiece fit for organic vapor cartridge/canister respirators. (1) Normal breathing; (2) Deep

breathing, as during heavy exertion; (3) Side-to-side and up-and-down head movements; (4) Talking; and (5) Other exercises, according to the VOSH standard.

- b. Irritant Smoke Test. Irritant smoke is used to test the facepiece fit of particulate filter respirators. This test can be used for both air-purifying and air-supplying respirators, but an air-purifying respirator must have a high-efficiency filter(s). The test substance is an irritant (stannic chloride or titanium tetrachloride). The tube ends are broken and air is passed through them so that a dense irritating smoke is emitted. If the wearer detects it then the fit is defective.
- D. Negative Pressure Test. This should be used only as a gross determination of fit. The wearer should use this test just before entering the hazardous atmosphere. In this test, the user closes off the inlets by veering them with the palms of his hands or squeezing the breathing tube so that it does not pass air, inhales gently so that the facepiece collapses slightly, and holds breath for about 10 seconds. The facepiece should remain slightly collapsed and no inward leakage should be detectable.
- E. Positive Pressure Test. This test is conducted by closing off the exhalation valve and exhaling gently into the facepiece. The fit is considered satisfactory if slight positive pressure can be built up inside the facepiece without any evidence of outward leakage.
- F. Quantitative Tests. Quantitative respirator performance tests involve placing the wearer in an atmosphere containing an easily detectable, relatively nontoxic gas, vapor or aerosol. The atmosphere within the respirator is continuously sampled through a probe in the respirator inlet covering. The leakage is expressed as a percentage of the test atmosphere outside the respirator, called "penetration." The greatest advantage to quantitative fit testing is that it indicates respirator fit numerically and does not rely on a subjective response. Two materials used in the quantitative tests are sodium chloride and dioctyl phthalate.
- G. Records. PMG will generate a record of the fit test that includes the following: (1) employee's name; (2) type of fit test performed; (3) make, model and style of respirator; (4) test date; and (5) the results of the test. The record will be retained until the next test is administered.

## VII. Training

- A. All individuals using respirators must be trained as to proper selection, fit, use, and maintenance. Perhaps the most important element of their training is to understand the limitations of the equipment. Training is conducted by the Safety Coordinator and consists of the following elements:
  - 1. Why the respirator is necessary and how improper fit, usage or maintenance can compromise the protective effect;
  - 2. How to use the respirator in emergency situations;

3. Fitting and checking the facepiece to face seal;
4. Nature of respiratory hazards involved and what may happen if proper respiratory equipment is not work;
5. Controls being used (environmental, engineering, and administrative) and the need to provide extra protection through respirator use;
6. Criteria for selecting a respirator;
7. Limitations of the respirator;
8. Proper method for donning the respirator and checking its operation;
9. Respirator maintenance and storage procedures;
10. Recognizing medical signs and symptoms that may limit the respirator's effective use; and
11. The requirements of the respiratory protection standard.

#### **VIII. Maintenance**

- A. Respirators used routinely must be inspected before and after each use. The following checklists outline potential problem areas that should be monitored frequently.
- B. Air-Purifying Respirators (quarter-mask, half-mask, and full facepiece):
  1. Rubber facepiece:
    - a. Excessive dirt (clean all dirt from facepiece);
    - b. Cracks, tears, or holes (obtain new facepiece);
    - c. Distortion (allow facepiece to "sit" free from any constraints and see if distortion disappears; if not, obtain new facepiece); and
    - d. Cracked, scratches, or loose-fitting lenses (contact respirator manufacturer to see if replacement is possible; otherwise obtain new facepiece).
  2. Headstraps:
    - a. Breaks or tears (replace headstraps);
    - b. Loss of elasticity (replace headstraps);
    - c. Broken or malfunctioning buckles or attachments (obtain new buckles); and
    - d. Facepiece slips (replace headstraps).
  3. Inhalation/Exhalation Valves:

- a. Detergent residue, dust particles, or dirt on valve or valve seat (clean residue with soap and water);
  - b. Cracks, tears, or distortion in the valve material or valve seat (contact manufacturer for instructions); and
  - c. Missing or defective valve cover (obtain valve cover from manufacturer).
4. Filter Elements:
- a. Filter appropriate to the hazard;
  - b. Approval designation;
  - c. Missing or worn gaskets (contact manufacturer for replacement);
  - d. Worn filter or facepiece threads (replace filter or facepiece);
  - e. Cracks or dents in filter housing (replace filter); and
  - f. Missing or loose hose clamps (obtain new clamps).
- C. Air-Supplying Respirators. In addition to the above, check the following:
1. Hood, helmet, blouse, or full suit (check if applicable);
    - a. Headgear suspension (adjust properly for user);
    - b. Cracks or breaks in faceshield (replace faceshield); and
    - c. Protective screen intact and fits correctly over the faceshield, abrasive blasting hoods, and blouses (otherwise obtain new screen).
  2. Air supply system:
    - a. Breathing air quality;
    - b. Breaks or kinks in air supply hoses and end fitting attachments (replace hose and/or fitting);
    - c. Tightness of connections;
    - d. Proper setting of regulators and valves (consult manufacturer's recommendations); and
    - e. Correct operation of air-purifying elements and carbon monoxide or high-temperature alarms.
- D. After each use, clean respirators thoroughly with soap and water or alcohol wipes to provide the wearer with a sanitary respirator for the next use. This is particularly important when respirators are interchanged between different workers.

- E. Chemical cartridges and gas mask canisters must be marked appropriately so that they can be replaced as suggested by the manufacturer. All self-contained breathing apparatus must be regularly inspected (monthly) and oxygen cylinders must be fully charged per manufacturer's specifications. All alert or warning devices have to be checked prior to use in order to ensure proper performance.
- F. Respirators are stored in an area which protects the equipment from dust, moisture, chemicals, and other environmental elements. A specific area must be designated for placement of all respirator equipment, not only for proper protection, but also for easy accessibility during emergencies.
- G. Repairs of respiratory equipment must be conducted by qualified individuals. Timely inspections and recording of these inspections must follow any repair.
- H. Respirators used for emergencies must also be inspected monthly in accordance with manufacturer's recommendations. Emergency escape only respirators must be inspected before being carried into the work place. The inspector will certify the inspection with a record that includes: (1) date of inspection; (2) inspector's name; (3) findings; and (4) identity of the respirator.

**IX. Voluntary Respirator Use**

- A. Employees may choose to wear a respirator when its use is not required as long as it will not create a hazard to the wearer. A voluntary user must still be medically evaluated, trained, and fit tested for the respirator that they intend to wear. The exception to this policy is the use of filtering dust masks, employees wanting to use a dust mask need only be provided with the information contained in Appendix D of Title 29 CFR § 1910.134.

**X. Program Evaluation**

- A. The Safety Coordinator will evaluate the workplace as necessary to ensure that the Program is being implemented and is effective. Any identified deficiencies will be corrected as appropriate.

# ENERGY CONTROL PROGRAM

## Purpose

- A. The purpose of this Energy Control Program ("Program") is to ensure that employees are protected from the unexpected energization of hazardous energy when performing maintenance or servicing activities on machinery or equipment.
- B. The law requires that Paige Mechanical Group, Inc. implement the Program to protect employees from the unexpected startup or release of stored energy that could injure employees. Accordingly, this Program contains the mandatory legal requirements that are set forth in the Occupational Safety Health Administration's ("OSHA") lockout/tagout standard, 29 CFR § 1910.147. PMG requires that all employees comply with this Program. Employees who fail to comply will be subject to appropriate disciplinary action, up to and including termination.

## II. Definitions

- A. Affected employee. An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.
- B. Authorized employee. A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under this section.
- C. Energy isolating device. A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors, and, in addition, no pole can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.

## III. General Lockout Procedure

- A. This section describes general lockout/tagout procedures for employees who will be performing work on machinery or equipment. A specific procedure will be developed for each piece of machinery or equipment that addresses the following:
  - 1. A specific statement of the intended use of the procedure;

2. Specific steps for isolating the equipment to control hazardous energy;
  3. Specific steps for the placement and transfer of lockout/tagout devices and the responsibility for them; and
  4. Specific requirements for testing equipment to verify effectiveness of the energy control measures.
- B. Lockout is the preferred method of isolating machines or equipment from energy sources and shall be used whenever possible. Equipment obtained or modified after January 2, 1990, will be installed with lockout capability. If tags are used, additional steps must be taken to provide the equivalent safety available from the use of a lockout device.
- C. Lockout and tagout devices must be singularly identified and shall be the only devices used to control energy. Such devices must be durable, standardized, substantial and identifiable as set forth in 29 CFR §1910.147(c)(5).
- D. The authorized employee shall identify all energy isolating devices (“EID”) on the equipment. More than one hazardous energy source and/or means of disconnect (electrical, mechanical, or others) may be involved. If there is more than one energy source, follow the specific procedure for that piece of equipment. In the case that a machine or piece of equipment does not have a specific procedure, no work can proceed until the Safety Coordinator provides the authorized person with a specific procedure.
- E. Notify all affected employees that a lockout or tagout system is going to be used. The authorized employee shall know the type and magnitude of energy that the machine or equipment utilizes and understand its hazards.
- F. If the machine or equipment is operating, shut it down by the normal stopping procedure. This is usually done by depressing the stop button, open toggle switch, etc. In addition, ensure that all stored energy is dissipated or properly restrained.
- G. Operate the switch, valve, or other EID so that the equipment is isolated from its energy source(s). Stored energy such as the springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc. must be dissipated or restrained.
- H. Lockout, blockout, and /or tagout device application:
1. Locks, blocks, and tags shall be affixed to each EID only by an authorized employee.
  2. Locks and tags shall be singularly identified.

3. Locks shall be affixed so that they will hold the EID in a safe or off position.
  4. Tags, when used, shall be affixed to clearly indicate that the operation or movement of the EID from the "safe" or "off" position is prohibited.
  5. Tags that cannot be affixed directly to the EID shall be located as close as safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.
  6. All potentially hazardous stored or residual energy shall be relieved, disconnected, restrained or otherwise rendered safe. If there is a possibility of reaccumulation of stored energy to a hazardous level, verification of isolation shall continue until the possibility for accumulation no longer exists. Stored energy may require blocks, blinds, flanges, etc. in order to appropriately control stored energy.
  7. After ensuring that no employees are exposed, as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate.
  8. CAUTION: RETURN OPERATING CONTROL(S) TO "NEUTRAL" OR "OFF" POSITION AFTER THE TEST.
  9. The equipment is now locked out or tagged out.
- I. Testing or positioning of machines, equipment, or their components;
1. In situations which lockout, blockout, or tagout devices must be temporarily removed from the EID and the machine or equipment energized to test or position the machine, equipment or its component, the following sequence of actions shall be followed:
    - a. Clear the machine or equipment of tools and materials.
    - b. Remove employees from the machine or equipment area.
    - c. Remove the lockout or tagout devices.
    - d. Energize and proceed with testing or positioning.
    - e. Deenergize all systems and reapply energy control measures in accordance with the requirement set forth in this instruction.
- J. Restoring machines or equipment to normal production operations.

1. After the servicing and/or maintenance activity is complete and equipment is ready for normal production operations, check the area around the machines or equipment to ensure that no employee is exposed.
  2. After all tools have been removed from the machine and employees are in the clear, remove all lockout or tagout devices. Operate the EID to restore the energy to the machine or equipment.
- K. Procedure involving more than one person.
1. In the preceding steps, if more than one individual is required to lockout or tagout equipment, each shall place his/her own assigned lockout device or tagout device on the EID(s). When an EID cannot accept multiple locks or tags, a multiple lockout or tagout device (hasp) may be used. If lockout is used, a single lock may be used to lockout the machine or equipment with the key being placed in a lockout box or cabinet which allows the use of multiple locks to secure it. Each employee will then use his/her own assigned lock to secure the box or cabinet. As each person no longer needs to maintain his or her lockout protection, that person will remove his/her lock from the box or cabinet.
- L. Removal of Lockout or Tagout devices.
1. Lockout/Tagout devices shall be removed from each EID by the employee who applied it, EXCEPT:
    - a. Lockout/Tagout devices may be removed by (name or title of authorized management official) if the authorized employee who applied it is not available;
      - (1) It is verified that the authorized employee who applied the device is not at the facility;
      - (2) All reasonable efforts were made to contact the authorized employee to inform him/her that his/her lockout or tagout device has been removed; and
      - (3) The authorized employee has this knowledge before he/she resumes work at the facility.
- M. Informing outside employers.
1. The Safety Coordinator will inform all outside employers of the elements of this Program and obtain information regarding their lockout/tagout programs. This information shall be conveyed to affected employees.
- N. Shift or personnel changes.

1. In the case of shift or personnel changes, a change over period will be established so that the authorized employees may remove and then apply their own locks/tags. Authorized employees assuming control of lockout and/or tagout equipment will be fully briefed in the scope and stage of the work by those whom are being relieved.

#### IV. Periodic Evaluations

- A. An authorized employee will evaluate the effectiveness of the entire program other than the one(s) utilizing the energy control procedure being inspected. Any deviations or inadequacies shall be documented and corrected.
- B. The date of the inspection/evaluation will be documented and maintained as a part of this Program until the next annual evaluation replaces it.

#### V. Training

- A. PMG will train employees on the purpose and function of this Program and on the knowledge and skills required for the safe application, usage and removal of energy control.
- B. Authorized employees will receive training on the recognition of applicable hazardous energy sources, the type of energy in the work place, and the means for energy control.
- C. Other employees will be trained about the procedure and about the prohibition relating to attempts to start equipment which has been locked or tagged out. Retraining will be provided when there is:
  1. A change in an employee's job assignment;
  2. A change in machines, equipment or processes that present a new hazard; and
  3. A change in the emergency control procedure.
- D. PMG will maintain a certification of employee training that contains the employee's name and dates of training.
- E. Accidents concerning Lockout/Tagout.
  1. The Safety Coordinator is responsible for investigating all lockout/tagout accidents. If the accident involved the control of hazardous energy with a single lockout source, a specific procedure will be written and before work is continued. If the accident involved a specific procedure for a piece of equipment, the lockout/tagout specific procedure will be evaluated and modified (if necessary) before authorizing work to continue.

## **HEARING CONSERVATION PROGRAM**

### **I. Purpose**

- A. This purpose of this Hearing Conservation Program ("Program") is to protect employees from occupational hearing loss. This Program applies to all Paige Mechanical Group, Inc. ("PMG") facilities.
- B. The Occupational Safety and Health Administration ("OSHA") Occupational Noise Exposure standard 29 CFR § 1910.95 establishes a permissible exposure limit for occupational noise exposure, and requirements for audiometric testing, hearing protection, and employee training when occupational sound levels equal or exceed the established permissible limits. If employees are exposed to sound levels that equal or exceed an eight hour time-weighted average ("TWA") of 85 dba ("Action Level"), an employer must implement a hearing conservation program.

### **II. Responsibility for Compliance**

- A. The Safety Coordinator is responsible for implementing this Program. These responsibilities include:
  - 1. Coordination and supervision of noise exposure monitoring;
  - 2. Identification of employees to be included in the Program;
  - 3. Coordination and supervision of audiometric testing program;
  - 4. Supervision of hearing protector selection;
  - 5. Development of policies relating to the use of hearing protectors;
  - 6. Supervision of employee training programs;
  - 7. Coordination and supervision of required recordkeeping;
  - 8. Periodic evaluation of the Overall Program; and
  - 9. Coordination of required changes/improvements in the Program.

### **III. Noise Monitoring**

- A. When information indicates that any employee's exposure may equal or exceed the Action Level, PMG will implement a monitoring program.
- B. PMG will identify employees for inclusion in the Program and to enable the proper selection of hearing protectors.

- C. Employee noise exposure will be computed in accordance with 29 CFR § 1910.95 Appendix A and Table G-16a, and without regard to any attenuation provided by the use of personal protective equipment (“PPE”).
- D. Instruments used to measure employee noise exposure shall be calibrated to ensure measurement accuracy.
- E. Monitoring shall be repeated whenever a change in production, process, equipment or controls increases noise exposures to the extent that:
  - 1. Additional employees may be exposed at or above the Action Level; or
  - 2. The attenuation provided by hearing protectors being used by employees may be rendered inadequate to meet the requirements (explained in section IX).
- F. PMG will notify each employee exposed at or above the Action Level as a result of the monitoring.
- G. Affected employees or their representatives may observe any noise measurements conducted.
- H. The Safety Coordinator will coordinate all monitoring efforts.

#### IV. Audiometric Testing

- A. Audiometric testing is available, at no cost, to all employees whose noise exposures equal or exceed the Action Level.
- B. Audiometric tests generally will be performed by a licensed or certified audiologist, otolaryngologist, or other physician, or by a technician who is certified by the Council of Accreditation in Occupational Hearing Conservation, or who has satisfactorily demonstrated competence in administering audiometric examinations, obtaining valid audiograms, and properly using, maintaining and checking calibration and proper functioning of the audiometers being used.
- C. Baseline audiogram. Within 6 months of an employee’s first exposure at or above the Action Level, PMG will establish a valid baseline audiogram against which subsequent audiograms can be compared.
- D. Mobile test van exception. Where mobile test vans are used to meet the audiometric testing obligation, [Company] will obtain a valid baseline audiogram within 1 year of an employee’s first exposure at or above the Action Level. Where baseline audiograms are obtained more than 6 months after the employee’s first exposure at or above the Action Level, employees must wear hearing protection for any period exceeding six months after first exposure until the baseline audiogram is obtained.

- E. The Safety Coordinator shall notify employees of the need to avoid high levels of non-occupational noise exposure during the 14-hour period immediately preceding the audiometric examination.
- F. Annual audiogram. Audiograms will be conducted at least annually after obtaining the baseline audiogram for each employee exposed at or above the Action Level. An employee's audiometric test records will include:
  - 1. Name and job classification of the employee;
  - 2. Date of the audiogram;
  - 3. The examiner's name;
  - 4. Date of the last acoustic or exhaustive calibration of the audiometer; and
  - 5. Employee's most recent noise exposure assessment.

**V. Audiometric Evaluation**

- A. Each employee's annual audiogram will be compared to his/her baseline audiogram by a qualified evaluator to determine if a Standard Threshold Shift ("STS") has occurred. An STS is a change in hearing threshold relative to the baseline of an average of 10dB or more at 2000, 2000, and 4000 Hz in either ear.
- B. The audiologist, otolaryngologist, or physician shall review problem audiograms and determine whether there is a need for further evaluation. PMG will provide the evaluator with the following information:
  - 1. A copy of the hearing conservation requirements set forth in the standard;
  - 2. The baseline audiogram and most recent audiogram of the employee to be evaluated;
  - 3. Measurements of background sound pressure levels in the audiometric test room; and
  - 4. Records of audiometer calibrations.
- C. If the annual audiogram shows that an employee has suffered a STS, PMG will notify the employee of the results in writing within 21 days.
- D. Unless a physician determines that the STS is not work related or aggravated by occupational noise exposure, PMG will take the following steps:
  - 1. Employees not using hearing protectors will be fitted with hearing protectors, trained in their use and care and required to use them.

2. Employees already using hearing protectors will be refitted and retrained and provided with hearing protectors offering greater attenuation if necessary.
- E. The employee will be referred for additional evaluation as appropriate if there is suspicion that a medical pathology of the ear is aggravated by the use of hearing protectors.
- F. If subsequent audiometric testing of an employee whose exposure to noise is less than an 8-hour TWA of 90 decibels indicates that a STS is not persistent, the Safety Coordinator:
  1. Will inform the employee of the new audiometric interpretation; and
  2. May discontinue the required use of hearing protectors for that employee.

## VI. Hearing Protection

- A. The Safety Coordinator shall ensure that hearing protection is worn:
  1. By an employee who is required by 29 CFR § 1910.95(b)(1) to wear PPE.
  2. By any employee who is subjected to sound levels equal to or exceeding an 8-hour TWA of 85 decibels.
  3. By any employee who is exposed to an 8-hour TWA of 85 decibels or greater and who has not had a baseline audiogram or has experienced an STS.
- B. Hearing protection will also be provided for employee voluntary use in areas that do not equal or exceed the Action Level.
- C. Employees may select their hearing protection from a variety of suitable hearing protectors at no cost to them. The Safety Coordinator will evaluate the attenuation characteristics of the hearing protectors to ensure that a given protector will reduce the individual's exposure to the required decibels.
- D. The Safety Coordinator will provide training in the use and care of all hearing protection, will ensure proper initial fitting, and will supervise its correct use.
- E. Supervisors will monitor employees to ensure that hearing protectors are worn by all employees who are exposed to noise levels at or above an 8-hour TWA of 90 decibels or if the employee experienced a permanent STS or has not yet had a baseline audiogram.
- F. Employees subject to this Program must properly use and maintain the PPE. Failure to comply will result in appropriate disciplinary action up to and including termination.